

### ABSTRACT

A signal processing circuit 20 has switches 21, a shift register 22, and an integrating circuit 23, and outputs voltages  $V_{out}$  indicating luminance profiles in a second direction and in a first direction of light incident to a photosensitive region 10. The switches 21 are provided corresponding to groups of photosensitive portions on one side electrically connected among a plurality of pixels arrayed in the first direction and corresponding to groups of photosensitive portions on another side electrically connected among a plurality of pixels arrayed in the second direction. The shift register 22 is an element for sequentially reading electric currents from the groups of photosensitive portions on one side in the second direction and for sequentially reading electric currents from the groups of photosensitive portions on another side in the first direction. The integrating circuit 23 sequentially imports the electric currents from the groups of photosensitive portions on one side and the groups of photosensitive portions on another side sequentially read by the shift register 22, and converts the electric currents into voltages.